ABSTRACT OF THE DISCLOSURE

A rate of cylinder-to-cylinder variations in an intake air quantity is calculated, and learned as a learning value based on an output from an airflow meter when a predetermined condition is met. The predetermined condition is set at a preferable condition for learning the rate of cylinder-to-cylinder variations. Subsequently, the rate of cylinder-to-cylinder variations is estimated based on the learning value when the predetermined condition is not met. Thus, cylinder-to-cylinder variations of an engine are accurately obtained in almost all the operating ranges, so that the measurement of the cylinder-by-cylinder intake air quantity with high degree of accuracy is achieved.